

# International Journal of Analytical Mass Spectrometry and Chromatography



ISSN: 2332-1768



# Journal Editorial Board

ISSN Print: 2332-1768      ISSN Online: 2332-1776

<http://www.scirp.org/journal/ijamsc>

## Editor-in-Chief

---

**Dr. Ilia Brondz**      Norwegian Drug Control and Drug Discovery Institute, Norway

## Associate Editor-in-Chief

**Dr. Federico Maria Rubino**      Università degli Studi di Milano, Italy

## Editorial Board

**Dr. Chanbasha Basheer**      KFUPM, Saudi Arabia

**Dr. Sevgihan Yildiz Bircan**      Nagoya University, Japan

**Prof. Sedunov Boris**      Russian New University, Russia

**Prof. Huan-Tsung Chang**      National Taiwan University, China

**Dr. Alberto Chisvert**      University of Valencia, Spain

**Dr. Lan Dai**      Genentech, Inc., USA

**Dr. Enrico I Davol**      IRCCS Istituto Mario Negri, Italy

**Prof. Nguyen Huynh Dong**      PetroVietnam Manpower Training College, Vietnam

**Dr. Devrishi Goswami**      The SCRIPPS Research Institute, USA

**Prof. Farid Gumerov**      Kazan National Research Technological University, Russia

**Dr. Matthew S. Halquist**      Virginia Commonwealth University, USA

**Dr. Qiuting Hong**      Eurofins Lancaster Laboratories, USA

**Dr. Shen Hu**      University of California, USA

**Dr. Hui Li**      Washington State University, USA

**Dr. X. Michael Liu**      Bausch & Lomb, Inc., USA

**Dr. Rocío Maceiras**      Defense University Center, Spain

**Prof. Susana Rodriguez-Couto**      Health and Water Division, Spain

**Prof. Chuan-Chou Shen**      National Taiwan University, China

**Prof. N. Sivaraman**      Indira Gandhi Centre for Atomic Research (IGCAR), India

**Dr. Jozef Stec**      Chicago State University, USA

**Dr. Troy D. Wood**      University of New York at Buffalo, USA

**Prof. Mehmet Yaman**      Firat University, Turkey

## Academic Editors

**Dr. Liulin Deng**      Biology Science Division Pacific Northwest National Laboratory, USA

**Dr. Barbara Pioselli**      Biomolecules Structural Characterization Unit, Italy

**Dr. Vaneet K. Sharma**      Novartis Vaccines, USA

**Dr. Yuping Zhou**      Eli Lilly and Company, USA

## Table of Contents

**Volume 4    Number 3**

**September 2016**

### **Analytical Approach to Clusters in near Critical CO<sub>2</sub>**

B. Sedunov, I. Brondz.....39

# International Journal of Analytical Mass Spectrometry and Chromatography (IJAMSC)

## Journal Information

### SUBSCRIPTIONS

*International Journal of Analytical Mass Spectrometry and Chromatography* (Online at Scientific Research Publishing, [www.SciRP.org](http://www.SciRP.org)) is published quarterly by Scientific Research Publishing, Inc., USA.

#### **Subscription rates:**

Print: \$39 per issue.

To subscribe, please contact Journals Subscriptions Department, E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### SERVICES

#### **Advertisements**

Advertisement Sales Department, E-mail: [service@scirp.org](mailto:service@scirp.org)

#### **Reprints (minimum quantity 100 copies)**

Reprints Co-ordinator, Scientific Research Publishing, Inc., USA.

E-mail: [sub@scirp.org](mailto:sub@scirp.org)

### COPYRIGHT

#### **Copyright and reuse rights for the front matter of the journal:**

Copyright © 2016 by Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>

#### **Copyright for individual papers of the journal:**

Copyright © 2016 by author(s) and Scientific Research Publishing Inc.

#### **Reuse rights for individual papers:**

Note: At SCIRP authors can choose between CC BY and CC BY-NC. Please consult each paper for its reuse rights.

#### **Disclaimer of liability**

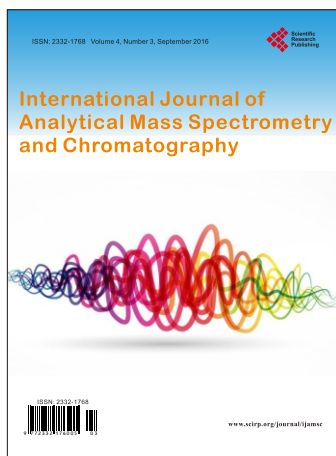
Statements and opinions expressed in the articles and communications are those of the individual contributors and not the statements and opinion of Scientific Research Publishing, Inc. We assume no responsibility or liability for any damage or injury to persons or property arising out of the use of any materials, instructions, methods or ideas contained herein. We expressly disclaim any implied warranties of merchantability or fitness for a particular purpose. If expert assistance is required, the services of a competent professional person should be sought.

### PRODUCTION INFORMATION

For manuscripts that have been accepted for publication, please contact:

E-mail: [ijamsc@scirp.org](mailto:ijamsc@scirp.org)





# International Journal of Analytical Mass Spectrometry and Chromatography (IJAMSC)

ISSN Print: 2332-1768

ISSN Online: 2332-1776

<http://www.scirp.org/journal/ijamsc>

International Journal of Analytical Mass Spectrometry and Chromatography (IJAMSC) is an open access journal. The goal of the journal is to provide a platform for scientists, researchers and practitioners in industry and academia all over the world to present views, discuss new issues, and promote developments in all areas of Mass Spectrometry and Chromatography. We will provide a forum for the presentation of A. development in research, instrumentation, methodology, and industrial application and B. applications in clinical diagnostics, forensic medicine, drug discovery and drug control, monitoring of environmental pollutions, analyses of natural products and toxins as well as all areas connected to theoretical development of Mass Spectrometry and Chromatography as dynamic expanding field of sciences.

## Subject Coverage

The journal publishes original papers, short communications and technical notes including but not limited to the following fields:

- Analysis of Biological Active Substances
- Analysis of Natural Products and Toxins
- Analysis of Pharmacological Active Ingredients
- Applications of Multi-Detection System
- Applications to Biochemistry
- Applications to Elemental Analytical Inorganic Chemistry
- Applications to Environmental Chemistry
- Applications to Organic Synthesis
- Applications to Pharmaceutical Chemistry
- Atmospheric Pressure Chemical Ionization
- Capillary Electro-Chromatography
- Capillary Electro-Chromatography - Mass Spectrometry
- Capillary Electrophoresis
- Capillary Electrophoresis - Mass Spectrometry
- Capillary Electrophoresis - Mass Spectrometry in Proteomics
- Chromatography - Mass Spectrometry in Proteomics
- Construction of New Detection Devices for Mass Spectrometry and Chromatography
- Electro Hydrodynamic Ionization
- Elucidation of Molecular Structures by Mass Spectrometry and Chromatography - Mass Spectrometry
- Enantiomers Resolution and Enantiomers' Structure Elucidation
- Engineering of Mass Spectrometry and Chromatography
- Fast Atom Bombardment
- Field Desorption
- Field Ionization
- Fluorescence-Electrospray Ionization-Mass Spectrometry
- Gas Chromatography
- High Performance Liquide Chromatography
- High Speed Gas Chromatography
- Instrument Design and Instrument Development
- Ion Structure
- Ionization Processes
- Isomers Separations and Isomers' Structure Elucidation
- Laser Desorption
- Liquide Chromatography
- Mass Spectrometry in Proteomics
- Mechanisms and Energetics of Gaseous Ion Reactions
- Methodology Development
- Monitoring of Drug Quality and Monitoring of Drug Degradation
- New Columns Development and Engineering
- Preparative High Performance Liquide Chromatography
- Preparative Liquide Chromatography
- Preparative Thin Layer Chromatography
- Qualitative and Quantitative Analysis
- Sample Preparation and Specific Derivatization for Mass Spectrometry and Mass Spectroscopy
- Sample Preparation and Specific Derivatization for TLC, LC, HPLC, SFC and GC
- Spectroscopy of Gaseous Ions
- Supercritical Fluid Chromatography
- Supercritical Fluid Chromatography - Mass Spectrometry
- Supersonic Molecular Beam Ionization - Mass Spectrometry
- The Development in Simulated-Moving Bed Chromatography
- The Gel Filtration Chromatography (Separations of Proteins, Peptides, and Oligonucleotides)
- The Methodology in Micro-, Analytical, Semianalytical, Preparative and Bulk Chromatography
- Theoretical Aspects of Mass Spectrometry and Chromatography
- Thermal Ionization
- Thin Layer Chromatography

We are also interested in: 1) Short reports—2-5 page papers where an author can present an idea with theoretical background, but has not yet completed the research needed for a complete paper or an author presents preliminary data; 2) Short communications—2-5 page papers; 3) Technical notes—2-5 page papers; 4) Letters to the Editor; 5) Reviews or book reviews—comments and critiques (the number of pages is not restricted); 6) Advertisement.

## Website and E-Mail

<http://www.scirp.org/journal/ijamsc>

E-mail: [ijamsc@scirp.org](mailto:ijamsc@scirp.org)

## ***What is SCIRP?***

Scientific Research Publishing (SCIRP) is one of the largest Open Access journal publishers. It is currently publishing more than 200 open access, online, peer-reviewed journals covering a wide range of academic disciplines. SCIRP serves the worldwide academic communities and contributes to the progress and application of science with its publication.

## ***What is Open Access?***

All original research papers published by SCIRP are made freely and permanently accessible online immediately upon publication. To be able to provide open access journals, SCIRP defrays operation costs from authors and subscription charges only for its printed version. Open access publishing allows an immediate, worldwide, barrier-free, open access to the full text of research papers, which is in the best interests of the scientific community.

- High visibility for maximum global exposure with open access publishing model
- Rigorous peer review of research papers
- Prompt faster publication with less cost
- Guaranteed targeted, multidisciplinary audience



**Scientific  
Research  
Publishing**

**Website: <http://www.scirp.org>**

**Subscription: [sub@scirp.org](mailto:sub@scirp.org)**

**Advertisement: [service@scirp.org](mailto:service@scirp.org)**